

Appl. No. 10/081,556
Amdt. dated November 15, 2004
Reply to Office Action of May 13, 2004

PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1-18. Cancelled.

19. (Previously Presented) A system for implementing a best fare for each patron of a plurality of patrons, each patron utilizing a smart card for access to a plurality of mass transit devices, the system comprising:

a mass transit central computer;

a best fare data base connected to the mass transit central computer, the best fare data base for storing a plurality of price point tables, each price point table of the plurality of price point tables comprising at least one price point having a maximum fare corresponding to a maximum number of days;

a value load list processor for downloading at least one of the plurality of price point tables to at least one mass transit device of the plurality of mass transit devices; and

the plurality of mass transit devices coupled to the mass transit central computer and the value load list processor, each mass transit device of the plurality of mass transit devices comprising:

a smart card reader for reading from and writing to the smart card, the smart card for storing fare transaction data for a plurality of days, the fare transaction data comprising a purchased fare for each day of the plurality of days;

a best fare processor in communication with the mass transit central computer, the best fare processor for analyzing a rolling time period comprising a portion of the fare transaction data stored on the smart card against the at least one price point of the each price point table of the plurality of price point tables, the rolling time period having a start date and an end date, the best fare processor for determining the best fare for the rolling time period when a sum of the purchased fares for the rolling time period is at least equal to the maximum fare of the at least one price point.

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20. (Previously Presented) The system of claim 19, wherein the plurality of mass transit devices comprises at least one of rail gates, bus fare boxes, and parking lot structures.

21. (Previously Presented) The system of claim 20, wherein the plurality of price point tables comprises one of at least one bus price point table, at least one rail gate price point table, and at least one parking lot equipment price point table.

22. (Previously Presented) The system of claim 20, wherein a shared price point table of the plurality of price point tables is shared by at least two of the mass transit devices.

23. (Previously Presented) The system of claim 19, wherein the start date is determined based upon a first transaction of the fare transaction data stored on the smart card, and the end date is the start date plus the maximum number of days of the at least one price point.

24. (Previously Presented) The system of claim 23, wherein the maximum number of days is a multiple of seven days.

25. (Previously Presented) The system of claim 19, wherein the smart card stores the fare transaction data for up to twenty-eight (28) days.

26. (Previously Presented) The system of claim 19, further comprising:
a transaction data summary database connected to the mass transit central computer for storing the fare transaction data of the smart card for the each patron;

a transaction data analyzer connected to the best fare data base and the transaction data summary database, the transaction data analyzer for determining whether the fare transaction data meets requirements for a longer-period price point of at least one longer-period price point table of the plurality of price point tables.

27. (Previously Presented) The system of claim 26, further comprising an adjustor for determining credits due to the each patron based upon results of the transaction data analyzer and for communicating the credits to the mass transit central computer for download to the smart card of the each patron.

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28. (Previously Presented) A method for determining a best fare for a patron utilizing a smart card for access to at least one mass transit device of a plurality of mass transit devices, the method comprising the steps of:

storing a plurality of fare transactions on the smart card, each fare transaction of the plurality of fare transactions comprising a purchased fare value;

downloading at least one price point table to the at least one mass transit device, the at least one price point table having at least one price point comprising a maximum fare and a maximum number of days;

reading the plurality of fare transactions from the smart card;

comparing a sum of the purchased fare values for a time period to the at least one price point of the at least one price point table, the time period comprising at least a portion of the plurality of fare transactions defined by a start date and an end date; and

awarding the patron the best fare when the sum is equal to or greater than the maximum fare of the at least one price point.

29. (Previously Presented) The method of claim 28, further comprising the steps of:

storing the plurality of fare transactions from the smart card on a transaction database of a central computer;

comparing the plurality of fare transactions to a longer-period price point of the at least one price point table; and

downloading a monetary adjustment to the smart card based upon a result of the comparison.

30. (Previously Presented) The method of claim 28, wherein the plurality of mass transit devices comprises at least one of rail gates, bus fare boxes, and parking lot structures.

31. (Previously Presented) The method of claim 30, wherein the at least one price point table comprises one of at least one bus price point table, at least one rail gate price point table, and at least one parking lot equipment price point table.

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32. (Previously Presented) The method of claim 30, wherein a shared price point table of the at least one of price point table is shared by at least two of the mass transit devices.

33. (Previously Presented) The method of claim 28, wherein the start date is determined based upon a first transaction of the time period, and the end date is the start date plus the maximum number of days of the at least one price point.

34. (Previously Presented) The method of claim 28, wherein the maximum number of days is a multiple of seven days.

35. (Previously Presented) The method of claim 28, wherein the smart card stores the plurality of fare transactions for up to twenty-eight (28) days.

36. (Previously Presented) A system for providing a best fare for a patron utilizing a smart card for access to mass transit devices, the system comprising:

a mass transit central computer;

a best fare data base coupled to the mass transit central computer, the best fare data base for storing a plurality of price points, each price point of the plurality of price points comprising a maximum number of days corresponding to a maximum fare;

the mass transit devices comprising:

a smart card reader for reading from and writing to the smart card, the smart card for storing fare transaction data for a plurality of days; and

a best fare processor in communication with the mass transit central computer, the best fare processor for comparing the fare transaction data stored on the smart card to the maximum number of days and the maximum fare of the each price point of the plurality of price points to determine the best fare available to the patron for a rolling time period, the rolling time period comprising at least a portion of the plurality of days.

37. (Previously Presented) The system of claim 36, wherein the rolling time period has a start date and an end date, and wherein the start date for the rolling time period is a first transaction date of the fare transaction data, and the end date for the rolling time period is the start date plus the maximum number of days.

38. (Previously Presented) The system of claim 36, further comprising:

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a transaction data summary database connected to the mass transit central computer for storing the fare transaction data of the smart card for the patron;

a transaction data analyzer connected to the best fare data base and the transaction data summary database, the transaction data analyzer for analyzing whether the fare transaction data meets a longer-period price point of the plurality of price points; and

an adjustor for determining credits due to the patron based upon the analysis of the transaction data analyzer.

39. (New) A method for determining a best fare for a patron utilizing a smart card for access to at least one mass transit device of a plurality of mass transit devices, the method comprising the steps of:

storing a plurality of fare transactions on the smart card, each fare transaction of the plurality of fare transactions comprising a purchased fare value;

downloading at least one price point table to the at least one mass transit device, the at least one price point table having at least one price point comprising a maximum fare and a maximum number of days;

reading the plurality of fare transactions from the smart card;

comparing a sum of the purchased fare values for a time period to the at least one price point of the at least one price point table, the time period comprising at least a portion of the plurality of fare transactions defined by a start date and an end date; and

awarding the patron the best fare based on the comparison of the sum of the purchase fare values to a price point of the price point table.